

AK

Notice of Allowability

Application No.

09/885,220

Examiner

Dac V. Ha

Applicant(s)

DOBSON, WILLIAM KURT

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 09/15/04.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ The drawings filed on 20 June 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Dac V. Ha
Examiner
Art Unit: 2634

Allowable Subject Matter

1. Claims 1-20 are allowed.
2. The following is a statement of reasons for the indication of allowable subject matter:

Applicant has amended the claims in compliance with the office action dated 07/16/04. The present invention relates to a LAN adapter device including an equalizer within the receiver for equalizing the received signal with a simple yet effective equalizer training method. Particularly, prior art of record, taken individually or collectively, fails to fairly teach the claimed subject matter "receiver having a signal transformer for generating a frequency domain signal from the received time domain signal, and a frequency domain equalizer for operating on said frequency domain signal, said frequency domain equalizer comprising a single tap filter for each carrier of said plurality of modulated carriers received by said receiver; said transmitter transmitting at least one known symbol on at least two non-adjacent carriers and transmitting data symbols on carriers between said at least two non-adjacent carriers, and wherein said frequency domain equalizer generates filter taps for said each carrier in response to said at least one known symbol on said at least two non-adjacent carriers" in independent claim 1 (claims 2-7 depend therefrom) and the claimed subject matter "a transceiver connected to first and second physical interfaces for transmitting and receiving data on said first physical interface and transmitting and receiving modulated multi-carrier data bursts over said second physical interface, wherein each of said modulated multi-carrier data burst comprises a plurality of frames, said transceiver including a signal transformer for

Art Unit: 2634

converting received time domain signals to frequency domain signals, and a frequency domain equalizer connected to said signal transformer for processing said frequency domain signals, said-frequency domain equalizer comprising a single tap filter for each carrier of said modulated multi-carrier data burst received by said transceiver; wherein said frequency domain equalizer generates said equalizer taps for each carrier by interpolating a channel response from received known symbols” in independent claim 8 (claims 9-14 depend from claim 8) and “mapping the data to a plurality of sets of signal points where each signal point is assigned a carrier, and including predetermined signal points assigned to predetermined carriers in at least one set where the signal points are spaced at an interval of every Nth carrier, wherein N is an integer greater than 1; transforming each signal point set to a time domain signal; transmitting the time domain signals to a plurality of computing devices over a shared communication medium; receiving the time domain signals from the shared communication medium; converting the time domain signals to frequency domain signals; interpolating equalizer filter taps based on the predetermined signal points; and filtering said frequency domain signals using the interpolated equalizer filter taps” in independent claim 15 (claims 16-20 depend from claim 15). Thus, claims 1-20 are found to be novel and unobvious over prior art of record.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 571-273-3040. The examiner can normally be reached on 5/4.

Art Unit: 2634

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in dark ink, appearing to read 'Dac V. Ha', with a horizontal line drawn underneath it.

Dac V. Ha
Examiner
Art Unit 2634